

Date: Mon, 18 Jul 94 04:30:22 PDT  
From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>  
Errors-To: Ham-Ant-Errors@UCSD.Edu  
Reply-To: Ham-Ant@UCSD.Edu  
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Subject: Ham-Ant Digest V94 #227  
To: Ham-Ant

## Ham-Ant Digest

Mon, 18 Jul 94

Volume 94 : Issue 227

## Today's Topics:

80m Compact Loop--help  
DDRR antenna for Radio Astronomy  
J-pole Antenna  
On glass 2M & 70cm advice  
SWL antenna suggestions  
Twin Lead Jpole?  
Who invented the T2FD ?

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>

Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>

Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available (by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

We trust that readers are intelligent enough to realize that all text herein consists of personal comments and does not represent the official policies or positions of any party. Your mileage may vary. So there.

Date: 17 Jul 1994 22:34:25 -0400

From: agate!howland.reston.ans.net!news.intercon.com!news1.digex.net!digex.net!  
not-for-mail@ames.arpa  
Subject: 80m Compact Loop--help  
To: ham-ant@ucsd.edu

In article <Ct1q0A.Jrq@murdoch.acc.Virginia.EDU>, Theodore J. Bittner wrote:

> I live in a restricted subdivision, and I read with  
> interest the article by Jim McLleland, WA6QBU; "Roll Your Own  
> Compact 80 Meter Wire Loop Antenna", CQ,July 94, pp 44-46.  
> The article states the "twist" in the loop is what  
> gives the antenna so much distributed capacitance to allow it  
> to work on the low bands, but in the construction tips no  
> mention is made of physically putting a twist in the loop.  
> In point 7 of the construction tips Jim says to locate  
> wires at opposite ends of the loop that do NOT connect to each

> other for the lead ins and use the other set to connect to the  
> capacitance stub. I'm assuming this is what creates the twist  
> in the loop, correct?

> I feel dumb for asking, but I've learned not to assume  
> anything. Any thoughts to set me straight would be most  
> appreciated, as this design might help me out on 80m.  
> Thanks in advance for the advice.

> Ted--KQ4MZ  
> Charlottesville, Va

Ted,

Yes, 'twisting' the 300 ohm line 180 degrees is what is required. I built his 40M version last October (Sept 73 Magazine) and have had absolutely great results. It is within 2 s-units of a full size inverted vee. I placed the loop in my attic and use the tuner the way he recommends. I suggest that you spread the ends of the tuning stub and ALL connect point at least 2 inches (I use pc bread board material) otherwise you'll get a nasty arc if you exceed 50 watts. The arc burns the 300 ohm insulation and the SWR goes crazy from the carbon build up (yep, happened to me).

Good luck and let me know how you make out. Heck, lets try to work each other w/the loops, that'll be a good test. I'll have my 80M version in the attic in a few weeks (as soon as I have a cool night to get into the attic).

73...

Andy N3LCW

Date: Sun, 17 Jul 1994 16:37:51 GMT  
From: ihnp4.ucsd.edu!dog.ee.lbl.gov!newshu  
Subject: DDRR antenna for Radio Astronomy  
To: ham-ant@ucsd.edu

Hello

I have an interest in observing radio emissions from Jupiter. An antenna hardware design (DDRR type antenna), using PVC pipe, soft copper tubing, and wire mesh for a ground plane, was given in a special issue (1994-3) of Radio Astronomy, The Journal of the Society of Amateur Radio Astronomy (SARA).

Only trouble is that the DDDR antenna was designed for 21.6 MHz, which is too low for my receiver (IC R7100, 25 MHz to 2 GHz). I'd like to redesign the antenna for 25.200 MHz (This seems to be a

quiet frequency for listening --- I hope).

Any one have the relevant equations handy? The SARA article used a design by F. W. Hyde in 'Radio Astronomy Techniques', Practical Electronics, Mar 1992, Pg 221. I don't have this reference.

Paul Harden (pharden@zia.aoc.nrao.edu) told me to use a copper tubing length of  $L = 468 / F$  (feet), where  $F$  is the frequency in MHz, for Lambda over 2 or one half that for Lambda over 4. This is what I'm doing now but it would be good if I could learn how to derive the equations myself or find a good reference for this type antenna. I bought The ARRL Antenna Book, but the DRRR there seems to be different from that described by F.W. Hyde.

Al Aburto  
aburto@marlin.nosc.mil

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Date: 17 Jul 1994 22:52:34 -0400  
From: elroy.jpl.nasa.gov!usc!howland.reston.ans.net!newsserver.jvnc.net!yale.edu!  
noc.near.net!shore.shore.net!northshore.ecosoft.com!not-for-mail@ames.arpa  
Subject: J-pole Antenna  
To: ham-ant@ucsd.edu

I recently bought a Kenwood TS-430. I am looking for some information on building a J-pole antenna that will run from 80m-10m. Not too worried about the 160m band yet. I have checked a couple of sources, but have had no luck.

Any Comments?

Thanks,  
Jeff Stutzman (N1LUY)

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Date: Sun, 17 Jul 1994 17:07:48 GMT  
From: spsgate!mogate!newsgate!jump!lynch@uunet.uu.net  
Subject: On glass 2M & 70cm advice  
To: ham-ant@ucsd.edu

I want to put a dual band (2M / 70cm) on glass antenna on my Ford Explorer. I have a height restriction because of my garage and want to try and keep the entire length of the

antenna to 25 inches or less. So far I have not been haveing very much luck. I have found the Larsen KG 2/70 but its overall length is about 31 inches. I have seen another one from Mobile Mark advertised but have not been able to find one at HRO or other outlets. The Mobile Mark is evidently 24 inches in length.

Has anyone heard any reports about the Mobile Marks performance? Does it need to be connected to the car for a ground.? Any other suggestions for a dual band on glass antenna between 12 and 25 inches?

Scott Lynch  
KC7ADV  
lynch@chdasic.sps.mot.com

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Date: 18 Jul 1994 01:08:40 GMT  
From: koriel!news2me.EBay.Sun.COM!jethro.Corp.Sun.COM!seurat!mark1@ames.arpa  
Subject: SWL antenna suggestions  
To: ham-ant@ucsd.edu

I'm new to SWL and looking for suggestions for antenna designs. The area I have to work with is 15-20 ft. square horizontally, 4-5 ft vertically. As a start I put 50ft of long wire in a horizontal V facing SW (the longest, almost-straight configuration I could make).

Is a directional antenna called for when power lines are nearby? I'm on the west coast with lots of exposure from S through W to N, but with hills, houses, and powerlines right behind me.

Also, what kind of simple filters can I make to reduce noise?

Thanks!

Mark  
mark1@corp.sun.com

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Date: Sun, 17 Jul 1994 16:31:55 GMT  
From: l11-winken.llnl.gov!overload.lbl.gov!agate!library.ucla.edu!csulb.edu!  
csus.edu!netcom.com!netcom10!faunt@ames.arpa  
Subject: Twin Lead Jpole?  
To: ham-ant@ucsd.edu

I thought I had the instructions for this stored somewhere, but it must be on the computer that's down. Could someone send them to me?

thanks, and 73, doug

Date: Sun, 17 Jul 1994 18:24:35 GMT  
From: ihnp4.ucsd.edu!sdd.hp.com!spool.mu.edu!howland.reston.ans.net!  
europa.eng.gtefsd.com!uhog.mit.edu!news.kei.com!ub!freenet.buffalo.edu!  
aa450@network.ucsd.edu  
Subject: Who invented the T2FD ?  
To: ham-ant@ucsd.edu

In a previous article, [charlos@rivm.nl](mailto:charlos@rivm.nl) (Charles Potma) says:

>I am writing an article for our local club newsletter about the  
>Tilted Terminated Folded Dipole (T2FD). I have read a few articles  
>on the subject, particularly the ones in QST of june '49 and november  
>'51 written by W3HH. However it is not clear from these articles who  
>the actual inventor of the T2FD was and what the intended application  
>would have been. I would like to hear from anyone having more information  
>on this subject,

>^^^^^^^^^^^^^^^^^^^^^^^^  
>  
Carlos,  
John Heys, G3BDQ, in his book discusses the T2FD and says, "...developed  
in the late forties by Capt. G.L.Countryman, USN, W3HH, ...". He goes on  
to say that the antenna was used at the Long Beach Naval Station, California  
successfully and that it's radiation pattern and field strength measurements  
there were superior to a Marconi antenna.

Hope this helps, email if there are any details you wish.  
73 Kurt N2TTE

End of Ham-Ant Digest V94 #227  
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